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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,483

12/11/2003

Marc Michael Groz

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EXAMINER

PRESTON, JOHN O

ART UNIT

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3691

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/733,483	<b>Applicant(s)</b> GROZ, MARC MICHAEL	
	<b>Examiner</b> JOHN O. PRESTON	<b>Art Unit</b> 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 61-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 61-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on December 11, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Claims 61-67 were presented for examination. Applicant filed an amendment on April 20, 2009. Claims 61-67 were added. Claims 1-60 were canceled. The examiner establishes new grounds of rejection for claims 61-67. Since the new grounds of rejection were necessitated by applicant's amendment of the claim(s), the rejection of claims 61-67 was a final rejection of the claim(s).

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
3. Claims 61-66 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claims 61-66 are directed to "monitoring trades", and there is no written description in the specification that mentions or makes reference to "monitoring trades".
4. Claims 61-66 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 61-66 are directed to a method for trading securities and monitoring trades, but there is no description, let alone a description of how the trading and monitoring steps are carried out, in the specification of any process of executing trades or monitoring trades.
5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 61-66 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 61 states that at least a portion of the steps contained therein are carried out on a computer, but fails to particularly point out which steps are carried out on a computer. It is therefore unclear which steps are computer-implemented and thereby also unclear whether the claim is directed to statutory subject matter. In addition, claims 62-66 are dependent on claim 61 and are rejected on the same basis.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 61-66 were rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 61-66, as best understood, it appears that the claimed method steps could simply be performed by mental process alone and are not statutory. Based on Supreme Court precedent, a proper process must be tied to a machine or transform underlying subject matter to a different state or thing (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)). Since neither of these requirements is met by the claim, the method is not considered a patent eligible process under 35 U.S.C. 101. To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplished the method steps or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different

state. Claims 61-67 were directed towards steps of assigning, monitoring, and adjusting. Since the claims are directed to a process without tying the critical steps to a machine these claims fall within the scope of human intelligence alone, and are non-statutory.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
10. Claims 61-67 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kelton (6,729,884) and in view of Selleck (2001/0049651 A1), and further in view of Makivic (6,061,662).

Claim 61: In regard to the following limitation, Kelton suggests:

- a) assigning a first quantity of complex-valued currency to a first trader,  
(Kelton: col 8, lines 1-30)

Kelton does not teach the remaining limitations. However, Selleck suggests:

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- b) monitoring trades made by said first trader; (Selleck: pgh 42)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the elements cited in Kelton with the elements as taught by Selleck because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately. Kelton/Selleck does not teach the remaining limitations. However, in regard to the following limitations, Makivic suggests:

- said complex-values being expressed in polar coordinates and each comprising an absolute value  $V$  and a training parameter  $P$ , said  $V$  being a magnitude in a complex plane and said  $P$  being an angle in said complex plane; (Makivic: col 4, line 25 – col 5, line 40)
- c) adjusting said training parameter  $P$  in response to said monitoring; wherein at least a portion of said steps are automatically carried out on a computer specifically modified to process complex-valued transactions comprising both real and imaginary\_ dimensions wherein said imaginary\_ dimensions are in units of  $\sqrt{-1}$ . (Makivic: col 9, lines 20-50)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the elements cited in Kelton/Selleck with the elements as taught by Makivic because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately.

Claim 62: Kelton/Selleck/Makivic teaches the limitation(s) as shown in the rejection of claim 61. In regard to the following limitation, Kelton further suggests:

- wherein said training parameter is  $\pi/2$  such that said currency has a purely imaginary\_ value. (Kelton: col 7, line 60 – col 8 line 30)

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Claim 63: Kelton/Selleck/Makivic teaches the limitation(s) as shown in the rejection of claim

61. In regard to the following limitation, Kelton suggests:

- wherein said training parameter is randomly set. (Kelton: col 8, lines 55-67)

Claim 64: Kelton/Selleck/Makivic teaches the limitation(s) as shown in the rejection of claim

61. In regard to the following limitation, Kelton suggests:

- wherein said first trader is kept in complete ignorance of the value of P.  
(Kelton: col 8, lines 55-67)

Claim 65: Kelton/Selleck/Makivic teaches the limitation(s) as shown in the rejection of claim

61. Kelton/Selleck does not teach the following limitation:

- wherein said adjusting is in accordance with said trader's trading results.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Kelton/Selleck/Makivic in order to adjust the value of the currency in accordance with said trader's trading results because the prior art in Kelton/Selleck/Makivic suggests that it was within the ordinary skill in the art to perform said modification with a reasonable expectation of success and predictable results.

Claim 66: Kelton/Selleck/Makivic teaches the limitation(s) as shown in the rejection of claim

61. In regard to the following limitation, Kelton suggests:

- a) assigning a second quantity of said complex-valued currency to a second trader wherein the training parameter P of said second quantity is different than the training parameter P of said first quantity; and b) measuring a risk management criteria associated with the trades of both traders. (Kelton: col 8, lines 1-30)

Claim 67: In regard to the following limitation, Kelton suggests:

- said computer further comprising means for carrying out the steps of: a) assigning a first quantity of complex-valued currency to a first trader, (Kelton: col 8, lines 1-30)

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- d) assigning a second quantity of said complex-valued currency to a second trader wherein the training parameter P of said second quantity is different than the training parameter P of said first quantity: e) measuring a risk management criteria associated with the trades of both traders. (Kelton: col 8, lines 1-30)

Kelton does not teach the remaining limitations. However, Selleck suggests:

- b) monitoring trades made by said first trader; (Selleck: pgh 42)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the elements cited in Kelton with the elements as taught by Selleck because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately. Kelton/Selleck does not teach the remaining limitations. However, in regard to the following limitations, Makivic suggests:

- a computer specifically modified to process complex-valued transactions comprising both real and imaginary\_ dimensions wherein said imaginary\_ dimensions are in units of  $\sqrt{-1}$ , (Makivic: col 3, lines 30-40)
- said complex-values being expressed in polar coordinates and each comprising an absolute value V and a training parameter P, said V being a magnitude in a complex plane and said P being an angle in said complex plane; (Makivic: col 4, line 25 – col 5, line 40)
- c) adjusting said training parameter P in response to said monitoring; (Makivic: col 9, lines 20-50)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the elements cited in Kelton/Selleck with the elements as taught by Makivic because the claimed invention is merely a



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combination of old elements, and in the combination each element merely would have performed the same function as it did separately.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **John Preston** whose telephone number is **571.270.3918**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **ALEXANDER KALINOWSKI** can be reached at **571.272.6771**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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Examiner, Art Unit 3691  
July 27, 2009

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Supervisory Patent Examiner, Art Unit 3691